High-power Fiber Amplifier
Network Management Interface

Operation Manual

(ver 1.0)

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Revision History

Revision	Date	Description
1.0	20120428	Initial release

Introduction

This type of high power fiber amplifier produced by DKTCOMEGA Networks has been designed specifically for CATV optical transmission system. The CATV-HFA series provides up to 33dBm of total optical output power with excellent noise figure performance, and supports SNMP as well as Web Browser protocol. The available 10/100 Ethernet Interface enables online configuration of the products and offers customers good maneuverability.

Operation Manual

1. Web Service

Function: Web Server in HFA Device provides Http operating interface，which allows customers to read the basic HFA parameters and warning information with Internet Explorer.

Web Browser default login name: admin

Password: PASS

1.1 HFA Monitor

Input HFA IP address (example: 192.168.1.1) in the address column of the Windows IE Browser. The following window is displayed (Figure 1, Figure 2):

Click ‘HFA Monitor’ to read the current parameters of HFA

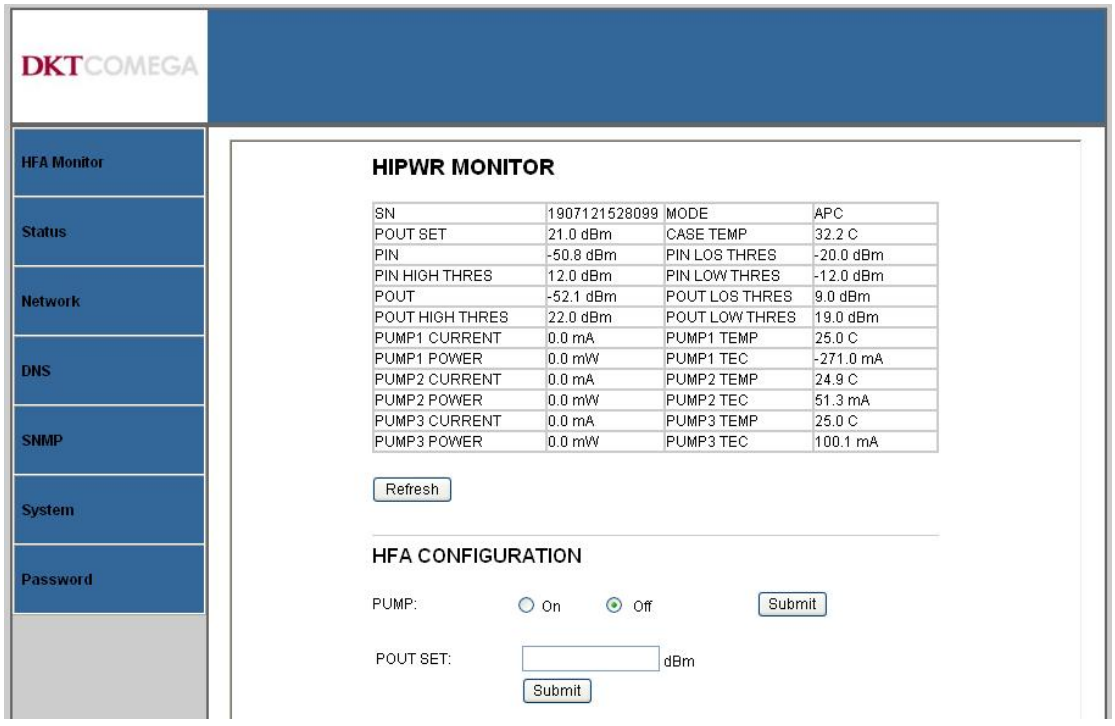
DKTCOMEGA
HFA Monitor
Status
Network
DNS
SNMP
System
Password
HIPWR MONITOR
SN 1907121528099 MODE APC
POUT SET 21.0 dBm CASE TEMP 32.2 C
PIN -50.8 dBm PIN LOS THRES -20.0 dBm
PIN HIGH THRES 12.0 dBm PIN LOW THRES -12.0 dBm
POUT -52.1 dBm POUT LOS THRES 9.0 dBm
POUT HIGH THRES 22.0 dBm POUT LOW THRES 19.0 dBm
PUMP1 CURRENT 0.0 mA PUMP1 TEMP 25.0 C
PUMP1 POWER 0.0 mW PUMP1 TEC -271.0 mA
PUMP2 CURRENT 0.0 mA PUMP2 TEMP 24.9 C
PUMP2 POWER 0.0 mW PUMP2 TEC 51.3 mA
PUMP3 CURRENT 0.0 mA PUMP3 TEMP 25.0 C
PUMP3 POWER 0.0 mW PUMP3 TEC 100.1 mA
Refresh
HFA CONFIGURATION
PUMP: On Off Submit
POUT SET: dBm
Submit

Figure 1

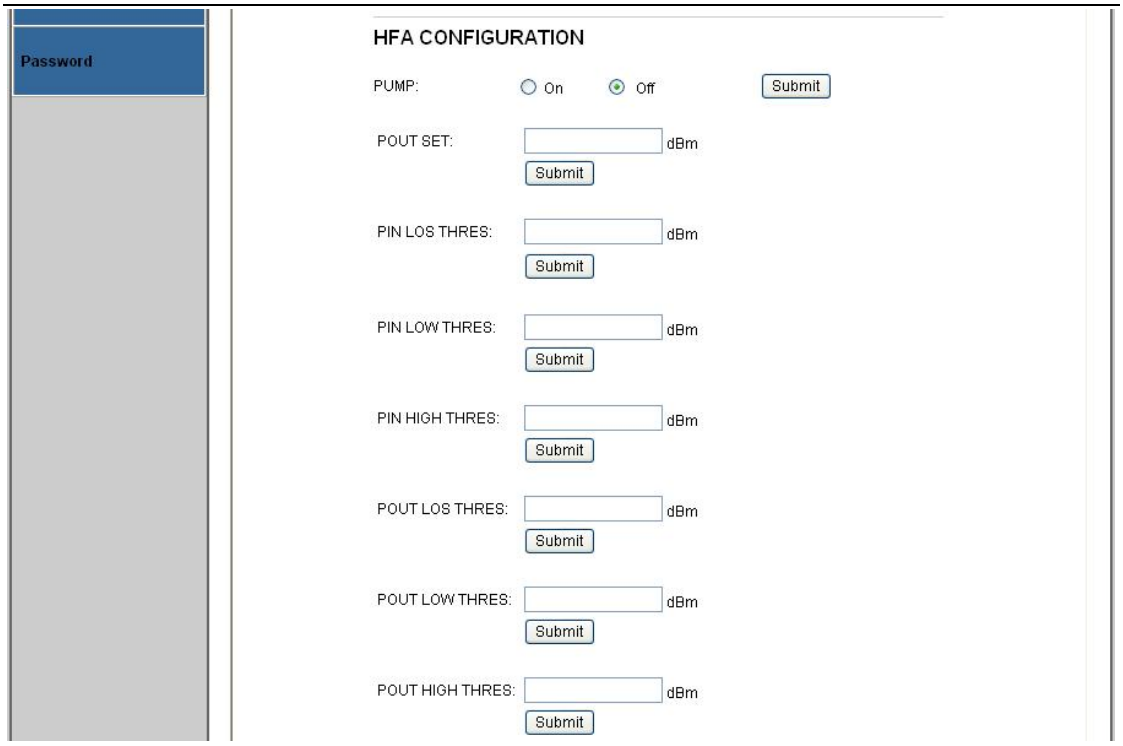

Figure 2

1.2 Status

Click ‘Status’ to read the current parameters of the device such as IP address, MAC etc(see Figure 3)

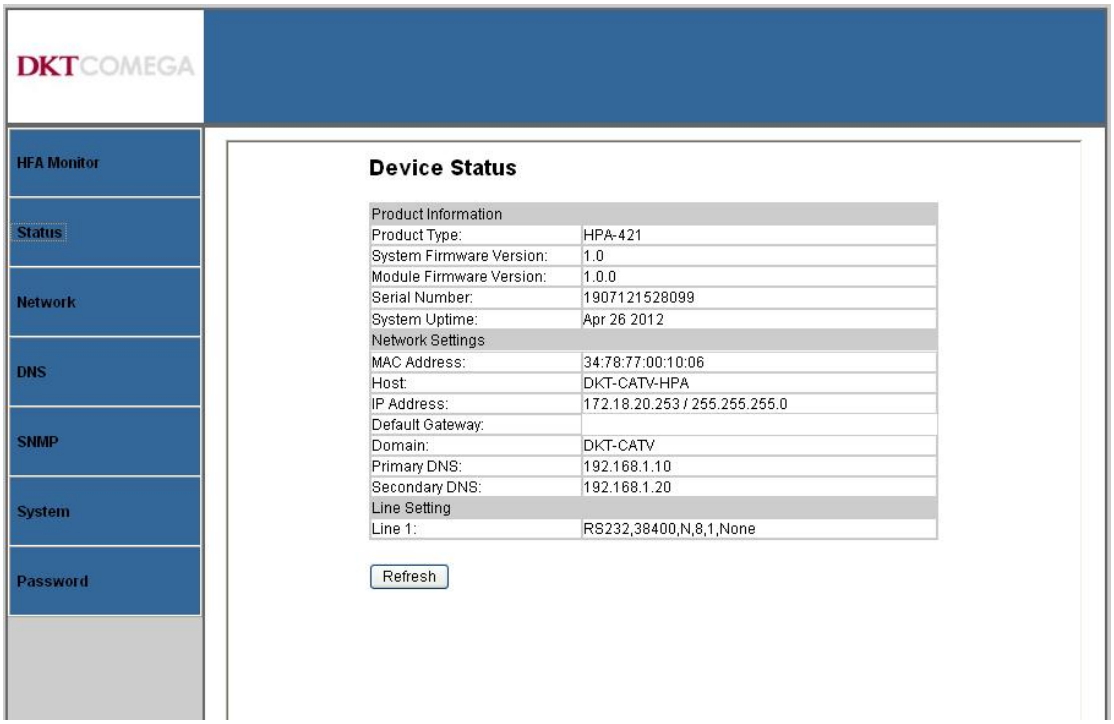

Figure 3

1.3 Network

Click ‘Network’ to go to Server setting window, in which parameters like IP Adress, Subnet, Gateway etc can be set. Click ‘Submit’, new parameters are sent to the server. (see Figure 4)

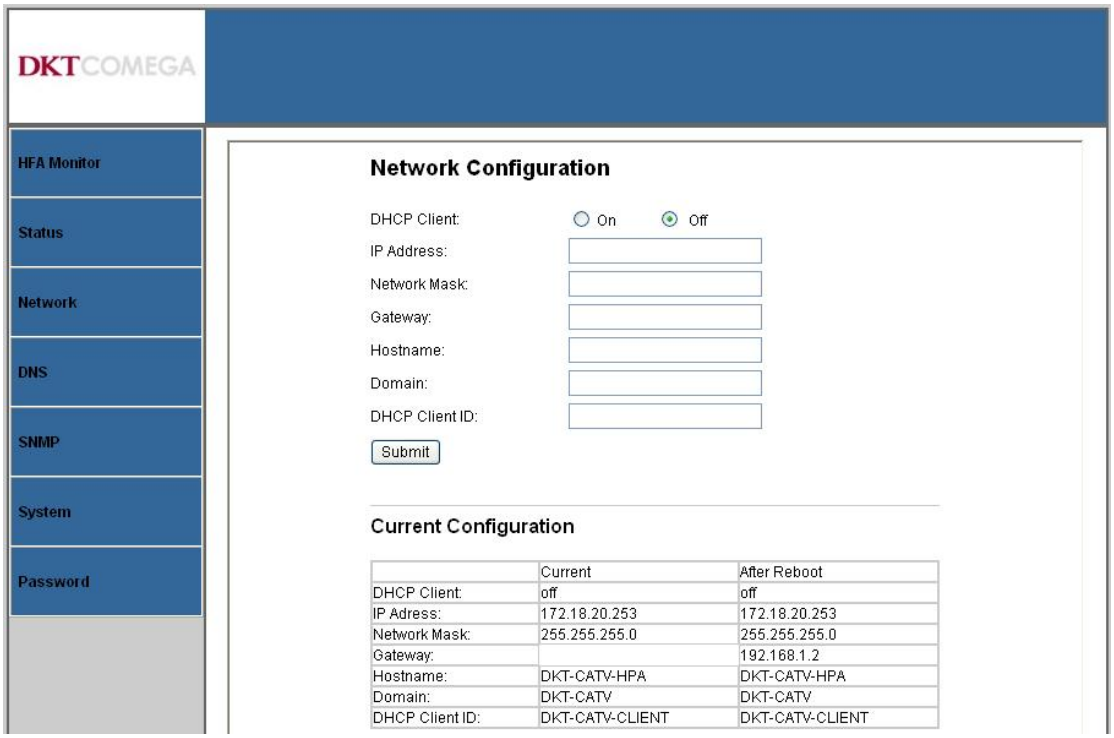

Figure 4

There are two configuration table columns displayed. One shows the current running configuration, and the other shows the configuration that will take effect after the device is rebooted.

The following items are required for the reboot to take effect:

- DHCP Client On/Off
- IP Address
- Network Mask
- DHCP Client ID

If the IP Address, Network Mask, Gateway, Hostname, and Domain have been configured for the device and DHCP is turned on, the original configuration items are ignored. DHCP will auto-discover and eclipse those configuration items.

1.4 DNS

Click ‘DNS’ to configure DNS of the server. (see Figure 5)

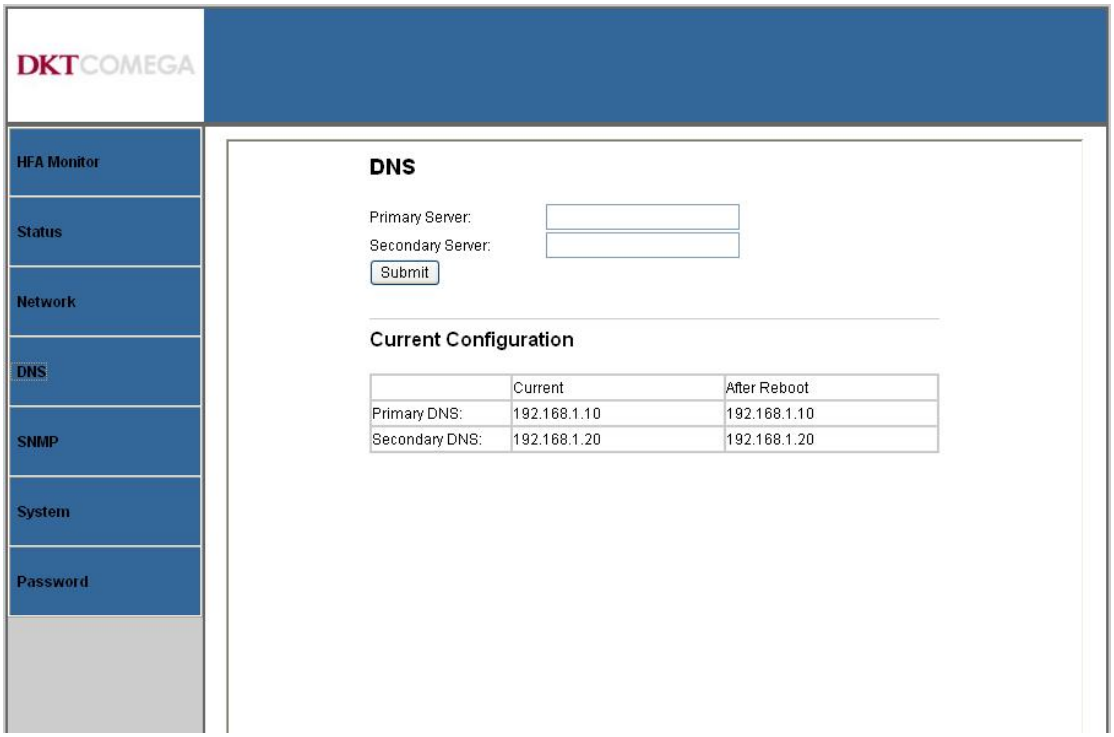

Figure 5

This page displays the current configuration of the DNS subsystem. Users may configure the Primary and Secondary static server addresses by themselves. If the current configuration shows the address coming from HCP, the static address will be overrided until the device is rebooted.

1.5 SNMP

Click ‘SNMP’ to read and write the parameters of HFA via SNMP manager.
(see Figure 6)

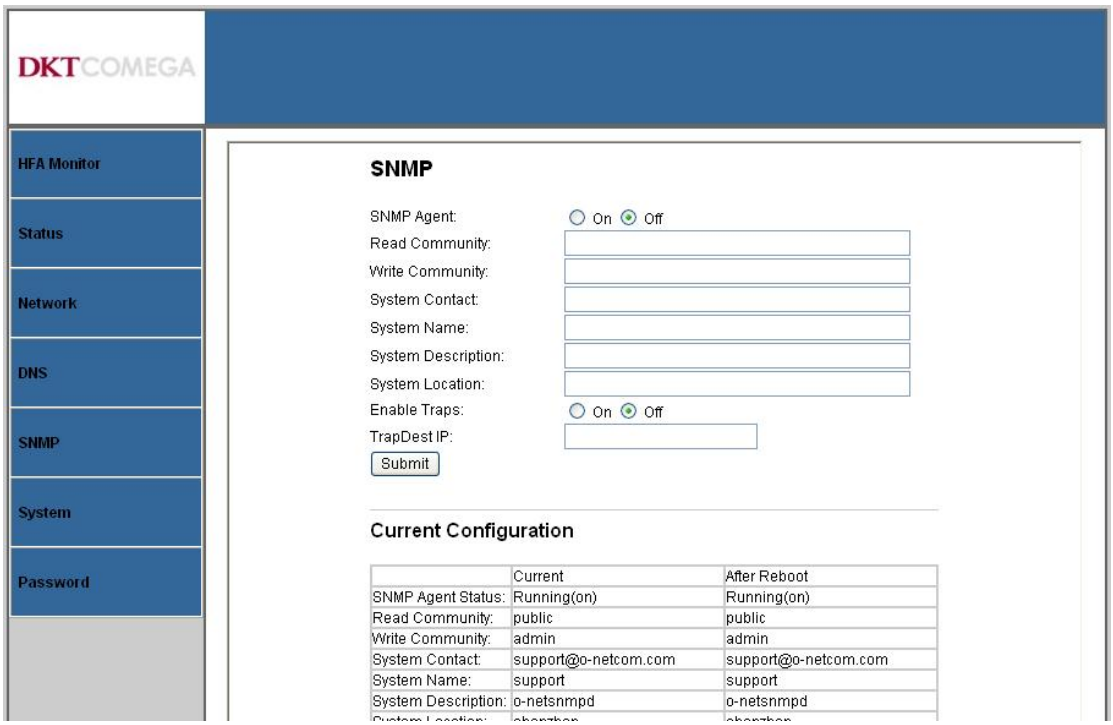

Figure 6

1.6 System

Click ‘System’ button to upload new firmware in order to update the current program in this web page. (see Figure 7). It will take a few minutes to update program, please be patient for it.

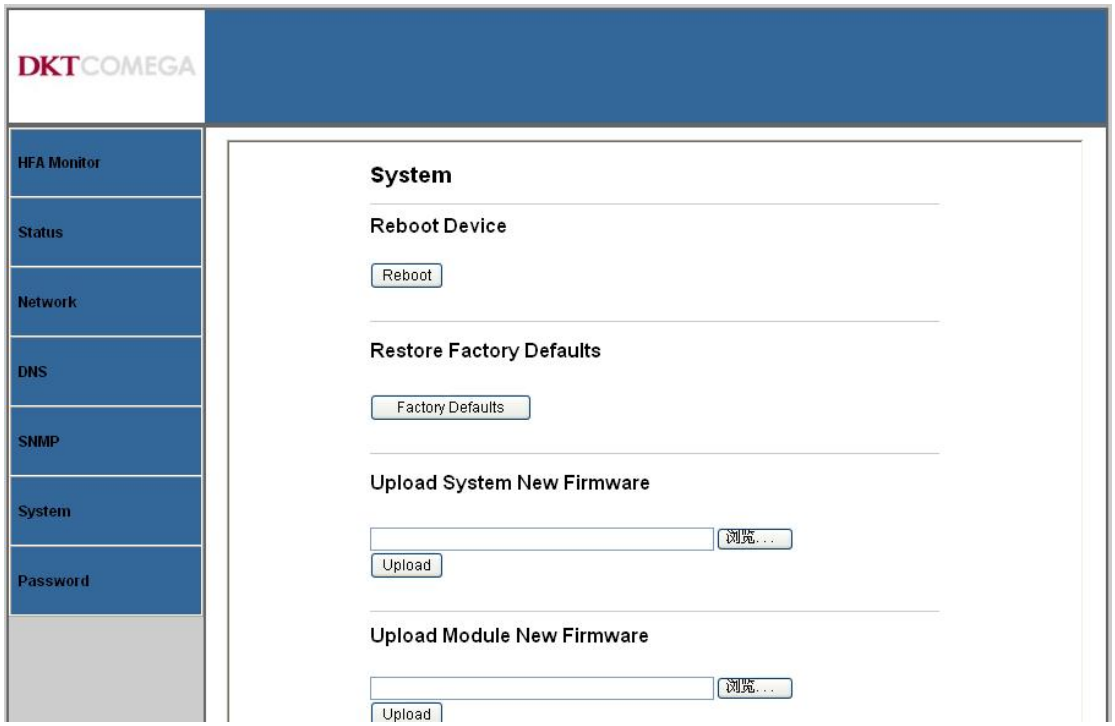

Figure 7

Be careful not to power off or reset the device while uploading new firmware. Once the upload has completed and the new firmware has been verified and flashed, the device will be rebooted automatically.

1.7 Password

Click ‘Password’ Button to change user password in this web page. (see Figure 8),
Note that users may start a new browser to access the device if the password of user is changed successfully.

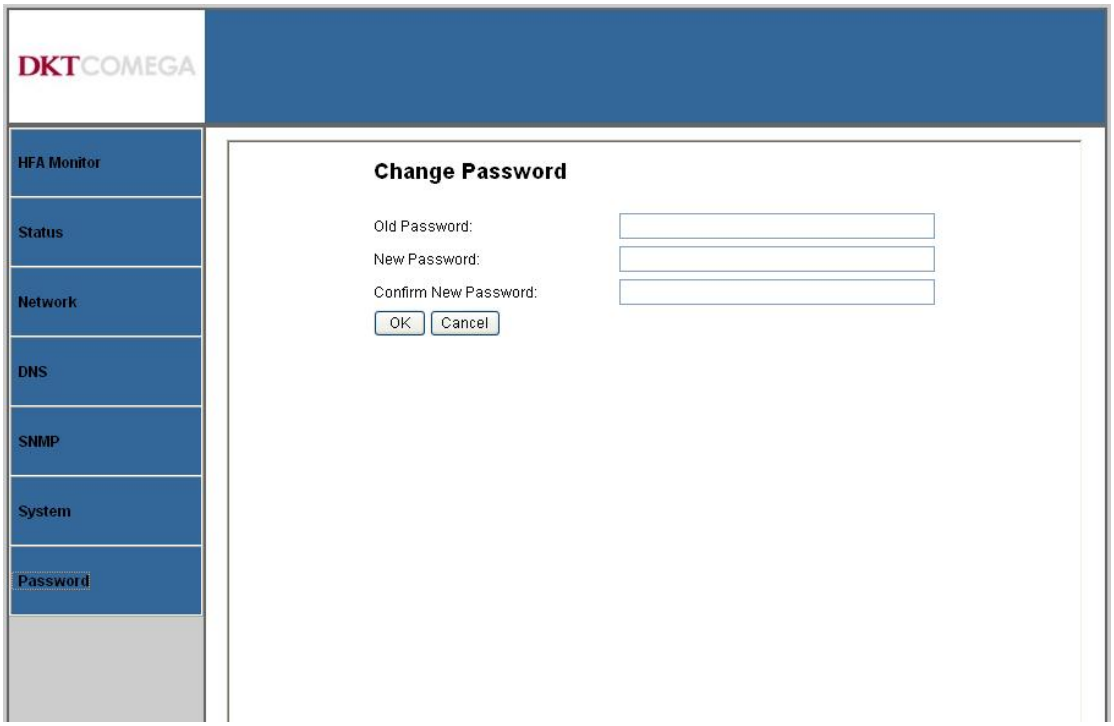

Figure 8

2. SNMP

Function: read and write the parameters of HFA via SNMP manager.

Default read community: public

Default write community: admin

The SNMP Agent located on the device follows standard SNMPv2 protocol. Users can read or write the OIDs defined by SNMP protocol mib in the table below.

2.1 SNMP Protocol MIB Definition

No.	OID	Content	R/W Authority	Value Type
HFA Definition				
1	1.3.6.1.4.1. 27304.89.2.1	SN	Read Only	String
2	1.3.6.1.4.1. 27304.89.2.2	TYPE	Read Only	String
3	1.3.6.1.4.1. 27304.89.2.3	Working mode	Read Only	String
4	1.3.6.1.4.1. 27304.89.2.4	Input optical power value	Read Only	String
5	1.3.6.1.4.1. 27304.89.2.5	Input optical power los alarm threshold	Read & Write	String
6	1.3.6.1.4.1. 27304.89.2.6	Input optical power low alarm threshold	Read & Write	String
7	1.3.6.1.4.1. 27304.89.2.7	Input optical power high alarm threshold	Read & Write	String
8	1.3.6.1.4.1. 27304.89.2.8	Set output optical power	Read & Write	String
9	1.3.6.1.4.1. 27304.89.2.9	Output optical power value	Read Only	String
10	1.3.6.1.4.1. 27304.89.2.10	Output optical power los alarm threshold	Read &Write	String
11	1.3.6.1.4.1. 27304.89.2.11	Output optical power low alarm threshold	Read &Write	String
12	1.3.6.1.4.1. 27304.89.2.12	Output optical power high alarm threshold	Read &Write	String
13	1.3.6.1.4.1. 27304.89.2.13	Case temperature	Read Only	String
14	1.3.6.1.4.1. 27304.89.2.14	Pump1 power	Read Only	String
15	1.3.6.1.4.1. 27304.89.2.15	Pump1 bias current	Read Only	String
16	1.3.6.1.4.1. 27304.89.2.16	Pump1 tec current	Read Only	String
17	1.3.6.1.4.1. 27304.89.2.17	Pump1 temperature	Read Only	String
18	1.3.6.1.4.1. 27304.89.2.18	Pump2 power	Read Only	String
19	1.3.6.1.4.1. 27304.89.2.19	Pump2 bias current	Read Only	String
20	1.3.6.1.4.1. 27304.89.2.20	Pump2 tec current	Read Only	String
21	1.3.6.1.4.1. 27304.89.2.21	Pump2 temperature	Read Only	String
22	1.3.6.1.4.1. 27304.89.2.22	Pump3 power	Read Only	String
23	1.3.6.1.4.1. 27304.89.2.23	Pump3 bias current	Read Only	String
24	1.3.6.1.4.1. 27304.89.2.24	Pump3 tec current	Read Only	String
25	1.3.6.1.4.1. 27304.89.2.25	Pump3 temperature	Read Only	String
26	1.3.6.1.4.1. 27304.89.2.26	Alarm bytes	Read Only	String
27	1.3.6.1.4.1. 27304.89.2.27	Pump on or off switch	Read &Write	String

Note:

1) Alarm Bytes (OID: 1.3.6.1.4.1. 27304.89.2.26):

Value = ALM1*256*256*256+ ALM2 * 256 * 256 + ALM3 * 256 + ALM4

Example: ALM1=0x04 ALM2=0 ALM3 = 0x02 ALM4 = 0x00

Value=4*256*256*256+0*256*256+0x02*256+0x00=04000200(HEX)

ALM1&ALM2&ALM3&ALM4 Definition:

ALM1 (1 byte)

Bit	7	6	5	4	3	2	1	0
Description	Los of Pin	Pin high	Pin low	Los of Pout	Pout low	Pout high	Case tmp high	Case tmp low

ALM2 (1 byte)

Bit	7	6	5	4	3	2	1	0
Description	Pump tmp	Pump ild	reserved	Pump1 power	reserved	reserved	reserved	Pump2 power

ALM3 (1 byte)

Bit	7	6	5	4	3	2	1	0
Description	reserved	reserved	reserved	Pump3 power	Power supply 1	Power supply 2	Fan 1	Fan 2

ALM4 (1 byte)

Bit	7	6	5	4	3	2	1	0
Description	reserved	reserved	reserved	reserved	reserved	reserved	reserved	reserved

Bit value: 1= Alarm 0= Normal or Reserved

2.2 Alarm Trap Definition

	Oid1 (Type)	Oid2 (Current value)	Describe
Trap			
Case Temp High Alarm	1.3.6.1.4.1.27304.89.4.1	1.3.6.1.4.1. 27304.89.2.13 (Case Temp.)	Case temperature High Alarm
Case Temp High Recovery	1.3.6.1.4.1.27304.89.4.2		Recovery
Case Temp Low Alarm	1.3.6.1.4.1.27304.89.4.3	1.3.6.1.4.1. 27304.89.2.13 (Case Temp.)	Case temperature Low Alarm
Case Temp Low Recovery	1.3.6.1.4.1.27304.89.4.4		Recovery
Pin Los Alarm	1.3.6.1.4.1.27304.89.4.5	1.3.6.1.4.1. 27304.89.2.4 (Input Power)	Input power Los Alarm
Pin Los Recovery	1.3.6.1.4.1.27304.89.4.6		Recovery
Pin High Alarm	1.3.6.1.4.1.27304.89.4.7	1.3.6.1.4.1. 27304.89.2.4 (Input Power)	Input power High Alarm
Pin High Recovery	1.3.6.1.4.1.27304.89.4.8		Recovery

Pin Low Alarm	1.3.6.1.4.1.27304.89.4.9	1.3.6.1.4.1. 27304.89.2.4 (Input Power)	Input power Low Alarm
Pin Low Recovery	1.3.6.1.4.1.27304.89.4.10		Recovery
Pout Los Alarm	1.3.6.1.4.1.27304.89.4.11	1.3.6.1.4.1. 27304.89.2.9 (Output Power)	Output power Los Alarm
Pout Los Recovery	1.3.6.1.4.1.27304.89.4.12		Recovery
Pout High Alarm	1.3.6.1.4.1.27304.89.4.13	1.3.6.1.4.1. 27304.89.2.9 (Output Power)	Output power High Alarm
Pout High Recovery	1.3.6.1.4.1.27304.89.4.14		Recovery
Pout Low Alarm	1.3.6.1.4.1.27304.89.4.15	1.3.6.1.4.1. 27304.89.2.9 (Output Power)	Output power Low Alarm
Pout Low Recovery	1.3.6.1.4.1.27304.89.4.16		Recovery
Pump temp Alarm	1.3.6.1.4.1.27304.89.4.17	1.3.6.1.4.1.27304.89.2.26 (Alarm Bytes)	Pump temperature Alarm
Pump temp Recovery	1.3.6.1.4.1.27304.89.4.18		Recovery
Pump ild Alarm	1.3.6.1.4.1.27304.89.4.19		Pump ild Alarm
Pump ild Recovery	1.3.6.1.4.1.27304.89.4.20		Recovery
Pump 1 power high Alarm	1.3.6.1.4.1.27304.89.4.21		Pump 1 power high Alarm
Pump 1 power high Recovery	1.3.6.1.4.1.27304.89.4.22		Recovery
Pump 2 power high Alarm	1.3.6.1.4.1.27304.89.4.23		Pump 2 power high Alarm
Pump 2 power high Recovery	1.3.6.1.4.1.27304.89.4.24		Recovery
Pump 3 power high Alarm	1.3.6.1.4.1.27304.89.4.25		Pump 3 power high Alarm
Pump 3 power high Recovery	1.3.6.1.4.1.27304.89.4.26		Recovery
Fan 1 alarm	1.3.6.1.4.1.27304.89.4.27		Fan 1 alarm
Fan 1 alarm recovery	1.3.6.1.4.1.27304.89.4.28		Recovery

Fan 2 alarm	1.3.6.1.4.1.27304.89.4.29		Fan 2 alarm
Fan 2 alarm recovery	1.3.6.1.4.1.27304.89.4.30		Recovery
Power Supply 1 alarm	1.3.6.1.4.1.27304.89.4.31		Power supply 1 alarm
Power Supply 1 alarm recovery	1.3.6.1.4.1.27304.89.4.32		Recovery
Power Supply 2 alarm	1.3.6.1.4.1.27304.89.4.33		Power supply 2 alarm
Power Supply 2 alarm recovery	1.3.6.1.4.1.27304.89.4.34		Recovery

(END)